Light-Up Paper House

Kit contains:

- Paper house template
- Roof template
- LED light
- Coin battery
- Paper clip
- Brass fastener
- 3 Strips of copper tape

You will need: scissors, tape, hole punch or nail, and coloring supplies.

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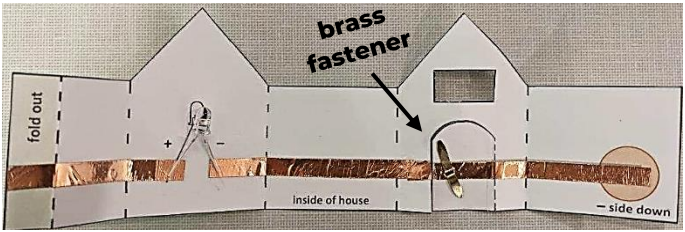
INSTRUCTIONS

Step 1. Cut out the paper house and roof templates along the solid lines. Punch a hole for the doorknob.

Step 2. Fold along the dashed lines so that the markings are on the inside of the house. The green flap gets folded outward.

Step 3. Peel and stick the copper tape pieces to the gray stripes.

Step 4. Bend the leads on the LED light to match the diagram. Make sure they are touching the copper, then secure with plain tape. Note that the longer LED lead is positive (+) and the shorter is negative (–).



Step 5. Insert the brass fastener through the doorknob hole and spread the prongs flat in opposite directions.

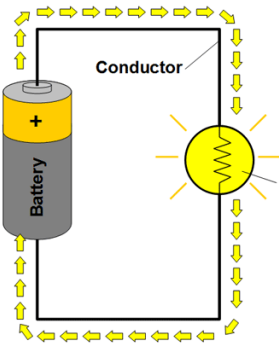
Step 6. Place the battery negative-side down on the orange circle. Bring the sides of the house around so that the green flap touches the positive side of the battery. Paper clip the battery sandwich in place.

Step 7. Your circuit is open and the light is off. Close the door to your house and turn the knob so that the prongs of the brass fastener connect the copper tape strips. This closes the circuit and turns on the light.

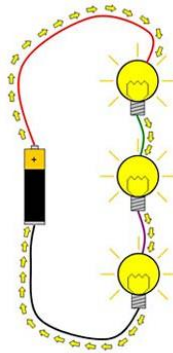
Decorate to your heart's content! We recommend leaving the roof detached for easy access.

TECH CONNECTION

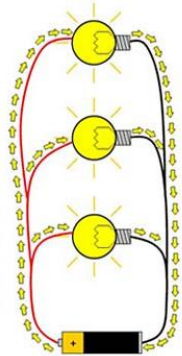
A **circuit** is a complete path around which electricity can flow. It must include a source of electricity, such as a battery. Materials that allow electric current to pass through them easily, called **conductors**, can be used to link the positive and negative ends of a battery, creating a circuit. In an open or broken circuit, there is a break along the line, and the current stops. In a closes or complete circuit, electric current can flow. When electric current flows, it can used by electrical appliances, such as light bulb.



Simple circuit



Series circuit



Parallel circuit